On the Partnership between Natural and Moral Philosophy

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Academia is currently in an awkward transitional period where pairs of fields with identical subject matter share little else but a mutual disdain. There are essentially two kinds of anthropology, two kinds of psychology, and two kinds of sociology. There are two general approaches to the study of behavior, and to the human mind and culture. The rivalry in each case can be described very simply: one field is rooted in an evolutionary framework, and the other ignores evolution as a matter of principle. The study of morality can be divided along the same fault line. Consider one person who self-identifies as "an evolutionary biologist interested in morality" and another who self-identifies as "a moral philosopher." In my experience, there can hardly be two people with such similar interests who are typically so committed to the idea that the other has nothing to offer. I once introduced such a pair to each other and received an identical look from each of them within the space of a minute or two when the other wasn't looking—the look that said, "What do you expect me to do with this person?" In the present chapter, I outline what such a pair of academic moralists might be thinking that could reasonably result in such wholesale dismissal of each other, in the form of thesis and antithesis. Then, I gesture toward a synthesis between these ostensibly opposed viewpoints, as a contribution to the project of overcoming the impasse between evolutionary biology and philosophy with respect to the study of morality as well as the study of humanity more generally.

As this is a series of position statements, assertions are rampant. The purpose here is not to provide evidence for the positions, which would take too much space, nor even to lay out the logical structure of the arguments. I am wary even of citing sources, because my goal in each statement is not to present the opinions of any particular researchers, much less to criticize them, but to capture the spirit of a perspective. I offer the thesis and antithesis not as representations of major figures or even consensus within each field, but simply as some effective arguments from each general perspective. Most of the critical assertions are common, whether or not one can easily find them in the literature: they are the (usually private but occasionally public) complaints of one academic field about common practice in the other, especially allegations of inane interference by each into the other's affairs. With a few exceptions, evolutionary biologists do not air their broad-brush grievances about philosophers in a stark fashion in the literature, and neither do philosophers about evolutionary biologists. Airing such grievances from both sides in the same place might accomplish two things. First, two perspectives that would be harsh and stereotypical and in need of tempering for courtesy's sake if offered separately, might not be offensive to either group if offered together. In this way, the points can be made as directly as they are in seminars, symposium receptions, and coffee shops, where (usually) conversation is eased by the absence of those being lambasted. Second, and more seriously, the beginnings of a synthesis might be attempted given the germs of truth in each perspective.

Such an approach would be of limited use, and even potentially misleading, if the thesis and antithesis were straw men, and the synthesis therefore a practically foregone "middle way." Therefore both the thesis and antithesis are honest position statements. Despite their dissonance, I endorse them both, and intend no ridiculous or untrue statement. Any ridiculous or untrue statements, therefore, are just as much in error and just as much my responsibility here as in any other paper. I make no statement "in character" merely for effect or illustration, to be retracted later in the synthesis. One result of this commitment is that some positions or concerns that are ubiquitous in the crossfire between biology and philosophy are absent from this discussion, if to my mind they arise from a fundamentally flawed perception of the matter. Two examples are genetic determinism, about which philosophers now worry for nothing, and the idea that evolutionary biology can turn moral philosophy into an applied science, which is just an ignorant conceit.

Thesis: Thus Spake the Evolutionary Biologist

"I see open fields for far more important researches." — Charles Darwin, On the Origin of Species

The central realization prompted by the discovery of evolution is that nothing in life is as it is without having been something else before. All species and their traits are products of a temporal process, and this process can explain their existence. The explanations that flourished before Darwin, and even since Darwin in fields where evolution is not appreciated, however interesting and insightful they may be, are likely to be fundamentally flawed because of their lack of consideration of this process-their neglect of evolution. The vast majority of professional philosophy is pre-Darwinian, by which I mean pre-Darwinian in its level of understanding of life, whether the ideas themselves date from before 1859 or today. We should not rely on pre-Darwinian philosophy to understand human nature, ethics, beliefs, emotions, and attitudes, any more than we would rely on Aristotle's physics or Galen's medicine in the respective fields today. The reason why we do not rely on them is because science, meaning our knowledge of the natural world, has moved on, and philosophy, including our interpretation of that knowledge, must catch up. When science moves into a territory previously occupied only by untested ideas, which thereby find themselves in competition with explanations that have an empirical basis, the philosophies that inspired those ideas have tended to, and ought to, succumb to modification or abandonment. Accordingly, cosmologists and philosophers of physics today are not troubling themselves with the natural resting place of sublunary matter; nor are medical ethicists and philosophers of healthcare basing their arguments on the delicate balance of the four bodily humors. But moral philosophers still generally talk about humans as though we snapped into existence ex nihilo, complete with a modern mind and morality.

A pervasive but disquieting lesson from the history of philosophy is that opinions diverge to an enormous breadth on any matter for which science has not narrowed down the scope of plausible theories. Because of the paucity of our scientific understanding of ourselves until recently, philosophy has been granted nearly free rein over human nature. In the past, when the construction of systematic philosophies was more common, the explanatory frameworks for understanding ourselves ranged as widely as fantasy worlds do in today's fiction, governed only by internal consistency and a modicum of correspondence with experience. More recently, one branch of philosophy—one might casually label it "postmodern"-has undertaken an exploration of what we might still be able to say if there are really no answers to the big questions the way we have usually tended to ask them, but only stories we tell to ourselves individually or collectively. From a scientist's perspective, this kind of philosopher has given up on explanation. Meanwhile, the other major branch of philosophy has sought to fill up all reasonable conceptual space on any particular question. To these, the analytical philosophers, a new idea is considered interesting mainly when it evades previous criticisms of similar ideas by being subtly different in some clever way. The present state of the field can thus be represented as a huge flowchart of possible opinion, with branching paths tracing all alternatives that are somewhat compatible with direct experience and have a level of internal consistency such that responses to detractors are not too *ad hoc*. Every route within this flowchart has its adherents, and new variations can be constructed either by finding a previously unappreciated distinction, or by sampling broadly from existing variety like adventurous chefs to create eclectic philosophical recipes. Having established a path, much of a philosopher's subsequent work concerns itself with describing in detail how one on this particular path interprets the world, and elaborating the difficulties those on other paths must face when they attempt to do the same thing.

One might ask whether we can do better than this at the task of explaining ourselves and our morality. When anyone is frustrated by repeated failures to answer a difficult question, a natural temptation arises either to allege some sort of trick and refuse to try further, or else to rattle off possible answers as soon as they come to mind. But a third alternative is to rethink the approach. What are we not seeing? To the evolutionary biologist, the answer is human natural history. We need a more substantial scientific basis for our understanding of ourselves. Evolutionary biology is in the process of narrowing the scope of plausible thought regarding the human being to an extent that no science has ever done, or even come close to doing. Empirical investigations into evolutionary processes and patterns provide historical and functional explanations for why life is the way it is, and why (homing in on our own species) every more specific nested group is the way it is: eukaryotes, animals, vertebrates, mammals, primates, hominids, and humans. Evolutionary analysis, broadly considered, does not stop at the species level, but can explain variation among populations and among

individuals within a population, whether that variation is relatively static over the lifetime of an individual and a product strictly of evolutionary change, or else more dynamic and a product of plastic change during development in response to an individual's environment. Evolutionary explanation is applicable across the range of modes of acquisition and transmission of traits, from genetic inheritance and organic evolution, through a continuum of intermediate developmental possibilities, to the other extreme of learned traits passed socially through cultural evolution. Humans are unique and unprecedented in many ways, but this does not require utter explanatory isolation, such that our theory of ourselves must start from scratch. We got to be ourselves by being something else first, so we can most effectively explain ourselves by explaining something else first. We came to our present state through gradual genetic and cultural evolution from other humans and ultimately other animals. Thus, in understanding ourselves, we should start with a science whose purpose is to explain living things. We can track ourselves along historical and functional lines, in order to find out where we are and how we got here and why. Our best-supported hypotheses in this area should then replace competing speculations on human nature that have prevailed so far in philosophy and have undergirded ethical theories.

Of course, many other programmatic explanations have promised to clarify human nature and morality. A historian of ideas might be excused for viewing the last paragraph as merely one in a crowded room of raucous claims by particular perspectives or disciplines. We can add Darwinian to the list of narratives that include the Platonic, Marxist, Hegelian, Nietzschean, Freudian, social constructivist, and so on, including theories implicit in the modern practice of social psychology, sociology, and most cultural anthropology. However, the uniqueness of evolution is evident when one considers that all of the other explanatory frameworks (1) were derived specially for the purpose of explaining humans and were not a consistent part of a well-supported overarching theory that explains the rest of life, and (2) are not, strictly speaking, scientific—they might be theory-driven and suitable for application to all sorts of human situations, but the theories and their applications have not been subjected to rigorous empirical testing, and so they are not self-correcting. In contrast, every component of evolutionary theory is subjected to rigorous and incessant testing, and continually emerges from those tests so successfully that no competing framework has risen to challenge it as an explanation of life, living things, and their lifestyles and component parts. Extending evolutionary analysis to humans is a special case of a general theory of enormous explanatory power. The issue is not whether such extension is warranted, but how it is appropriately done. Whether we—our bodies, our minds, our behavior—have been shaped by evolution and continually interact with that heritage is not really at issue and is therefore tested now only indirectly among those who are professionally devoted to the matter. That is to say, although every test of an evolutionary hypothesis with regard to humans is a test of the evolution of the human mind and body, evolutionary biologists are now homing in on more pressing, more particular questions. The current questions lie at the fringes of knowledge, where hypotheses have more than a negligible chance of being falsified. These remaining open questions relate to the interaction and relative importance of the various ways the genes and environment have and still do interact to shape the human organism during development. Our challenge now is to figure out how to test the particular hypotheses that are generated when we turn attention to our own species.

Here, in a nutshell, is currently our best web of interacting hypotheses that explains the main features of morality, beyond the foundational prosocial dispositions or sentiments that we share with other animals. Ancestors of humans associated preferentially and cooperatively with kin for millions of years, living in groups that were maintained by natural selection originally for predator avoidance, and then later for group hunting. As we humans became increasingly successful in dealing with what Darwin called the "hostile forces of nature," we became our own worst enemy; in other words, the main determinant of the reproductive success of an individual human became other humans. Even in cases where some sort of privation or danger was important, it tended to become filtered through the intensifying social scenario such that some people were more prone to such perils than others. Competition between human groups eventually outstripped defense against environmental forces as the primary function of group living, in the sense of being the primary source of natural selection maintaining group-related psychology and behavior. In this context, human cooperation within groups evolved as a way to compete between groups, such that individuals were more likely to survive and reproduce if they were committed to their groups, in addition to looking out for themselves individually (along with their kin and close associates). The practical conflict between these two different routes of garnering individual benefits-advancing one's own short-term aims at the expense of those of others, versus advancing the long-term aims of the groups to which one was a member-became one of the first of several sources of psychological and social conflict, whose arbitration is now one of the important operations of morality. The cooperation that was and still is a main behavioral theme (though not the only one) distinctive to morality arose from animal precursors primarily through two linked mechanisms. The first was an extensive complex of differential nepotism. Second, and building on the first, was a network of social reciprocity both direct (individuals paying each other in kind for actions done to each other) and, increasingly, indirect (individuals and even society as a whole paying individuals in kind for actions done to anyone). As the human capacity increased for registering, remembering, and communicating social character and reputation (hence advanced human intelligence and language), the maximum social group size increased and the network of reciprocity accordingly increased in complexity and intensity. In this context, we evolved an ever-increasing ability and tendency to gauge the social consequences of our actions and attitudes, to judge those of others, to intuit based on our experience the current standards by which others would judge us, to convey these standards to our children and companions, and to refine and apply our sentiments and dispositions, including love, in line with those developing perceptions and standards. These standards themselves are a product of social features inherent in the operation of society; the standards are similar among societies to the extent that the underlying features are common to all humans, and they differ among people and societies to the extent that the underlying features vary functionally in different social or natural environments. Also shaping these standards of behavior constantly are several important factors including the fear of those in power (and the powerful can disproportionately manipulate standards of action), the stability of one's social groups, changing social environments that alter the effects of certain actions and attitudes, one's own social status and prospects, and the costs and benefits of deceiving others and oneself. This cocktail of social influences and effects is the grist for the mill of moral analysis and assessment. It is where morality came from, and it explains why morality has the idiosyncratic features it does. Moral philosophy, for its part, is a Johnny-come-lately attempt to intellectualize—to organize and explain, and usually to rationalize—a human experience that had long been a functional part of what it meant to be human. Long before there was any formal moral philosophizing,

morality was rooted in the human journey both genetic and cultural. The perennial peculiarities of morality, which have led to the insoluble conundrums and disagreements of moral philosophy, all have their historical origins in the functions of human attitudes and actions in particular social environments.

Following this thumbnail sketch, I must hasten to add that particular evolutionary explanations offered here or in the literature may or may not yet be adequate to the tasks they have undertaken. Many of the statements above are still inadequately supported, and some of them could eventually be found false. Applying evolutionary theory to human minds and behavior is a fledgling science in many ways, and testing components of the overall schema is very difficult. As with any science to some extent, especially science directed at ourselves, the field is plagued with quality control issues and we must continually be alert for a host of biases. Peer review is bustling, to say the least.

Philosophers must not consider the youthful state of human evolutionary biology as letting them off the hook. Science is never perfect in its process, never complete in its explanation, and never certain in its conclusions. If philosophers were to wait to attend to science until any of these goals were achieved, this would be tantamount to absolute severance of communication, and philosophy would be disconnected from the physical universe. Particular moral philosophies would be reduced to historical curiosities or mystical religions. Many moral philosophies may be well on their way to this status already. Those that do keep ties with the physical universe are generally those that have interacted with psychology, and in some cases sociology or cultural anthropology. However, such resources are insufficient as empirical equipment for an ethical theory. These fields are like biology before 1859: collections of interesting data and particular explanations without a way to integrate everything into a coherent framework: no broad, well-supported theory explaining *why* the data turn out that way and how all of the bits work together to form the human person or a human society. The pre-Darwinian social sciences produce much good fruit for the picking, but others must make the pie.

One might encapsulate the evolutionary biologist's thesis here by focusing on where an ethical theory begins. Assuming that most philosophers want to construct a naturalistic (i.e., not supernaturalistic) ethical theory, what better way is there to begin than our best description of the human whose morality is our object of study? By contrast, naturalistic ethical theories that start with a utility principle, a set of desires or sentiments, an axiomatic moral truth, or some concept of human flourishing or happiness that pays lip service to science rather than being derived from it, all of these theories are putting the cart before the horse and have simply got to go. As moral philosophers even attempt to tell each other, such prefabricated ideas are not based on an adequate description of the human situation. However, the various moral philosophers, after employing such critique against each other, ironically tend to come down on the side of some other theory that is equally aloof from our knowledge of humans. The evolutionary biologist would replace all such starting points with the most current and integrative understanding of the human being. Perhaps we should start with evolution, an empirical foundation that can set us going in the right direction. Let us see how far this science gets us, and then build from there.

Antithesis: Thus Spake the Philosopher

"Darwin's theory has no more to do with philosophy than any other hypothesis in natural science."

-Ludwig Wittgenstein, Tractatus Logico-philosophicus, 4.1122.

Young, excited Charlie ran up to the table where his father Ludwig was reading, and pulled on his arm. "Why can't I? All the other kids are doing it!"

Ludwig put down the paper, and shook his head firmly. "That is simply not a good enough reason. You may not do it."

"Well . . ." Charlie frowned. "Why not then?"

Ludwig paused, then smiled warmly at the child. "I am not going to explain my reasons right now, because my reasons are not really the point here. The point is that when we decide what you can and can't do, we are certainly *not* going to decide it on the basis of what other kids are doing. That is throwing the whole decision out the window, and that will not happen in our house."

Among the major points on which analytical meta-ethicists are near consensus, one is that there is a big difference between stating an empirical fact about something (a fact that science can countenance) and saying that it is morally good or right. Some prefer to make this point in a logical sort of way, as David Hume did, saying that one cannot just move from premises containing *is* to a conclusion containing an *ought*. Logic requires a bridge premise here, something that contains both *is* and *ought* so as to posit the relation they bear to each other. Others have preferred to make a point in the same spirit but at the semantic level, as G. E. Moore did, saying that there is no term that refers to or represents an empirical fact about something that means the same thing as the moral term *good*. Still others make the point in a more fundamental way, at what might be called the synthetic level, and say for instance, as Hilary Putnam did, that moral goodness is not the same thing as any empirical aspect of things that science can countenance; or more precisely, goodness is not synthetically identical to any physicalistic property. None of this means that moral goodness is nonsense, unknowable, necessarily supernatural, or pure intuition divorced radically from the empirical world. Those are possibilities, but all the spirit of this argument is really saying is that one has to do some very careful work (as it turns out, as careful-and controversial—as any work in the entire field of moral philosophy) to move from those is to ought statements, to connect those moral and nonmoral terms, or to show how goodness relates to those physicalistic properties. The point here is not that this work is done and everyone is happy with the result that philosophy has produced. There is no such single result, of course, but a diversity of opinion. The point is rather that whatever we decide to do with goodness, we are certainly not just going to let evolutionary biology tell us to hitch it up in some simplistic way to, much less let it be replaced or obliterated by, what people have evolved to think or do, or what made people have more babies a long time ago, or any similar set or subset of such things. To do that is to throw everything that is most distinctive about moral goodness right out the window.

Before elaborating on what is special about moral goodness, let us play Darwin's advocate for a moment. Suppose that there is an excellent account of morality where goodness (to continue to use this concept here as a distinguished representative of the stuff of morality) is indeed connected somehow to how we evolved, or is at least illuminated by it. Suppose that some sort of careful relation can be developed between certain evolved features of our psychology and moral goodness, or at least what people tend to think of as moral goodness. Even if this were possible, we are in the unfortunate situation of not being able to rely on the very people who are interested in such things—the evolutionary biologists, broadly construed—to say much of importance on the matter, because when it comes to morality they are not specific about what it is they are trying to explain, and indeed cannot be specific because they do not use the tools that have been developed (by philosophers) for that purpose. The evolutionary biologist can easily criticize philosophy for failing to answer the big questions of existence, and for proliferating opinions on every matter within its purview; but at least the philosophers are explicit and precise about the objects of their study. Granted, evolutionary biologists do attend more carefully and closely to the other side of the relation—the more typical matters of their field, the patterns and processes of evolution and the traits of humans that are in continuity with traits of other organisms. When dealing with things that are sui generis in humans, however, especially morality and religion, an unspoken rule among evolutionary biologists seems to hold sway, namely that one can describe these things any way one likes. A mere moment's reflection is considered sufficient, as though a focused study of morality has never led to any thoughts or observations that are worth considering. Fortunately, evolutionary biologists do not apply this notion to most other traits, about which their methods are remarkably precise and ever increasingly so.

The widespread assumption in evolutionary biology that one can have immediate and unfailing knowledge about the nature of morality merely by being interested in it yields an inevitable result: that every evolutionary biologist who talks about morality describes it differently, depending on one's perspective and area of expertise. The result is a range of interesting and often careful scientific results, connected hastily to an assortment of simplistic conceptions of morality rife with unexamined assumptions. The proponents do not often interact with each other concerning the variations or contradictions among their conceptions of morality, nor do they organize their results or opinions in relation to those of other researchers. Evolutionary approaches to morality are like the cosmologies of a dozen enthusiastic stargazers, each with a geocentric approach to the universe and residing on a different planet. Each assumes that the particular position of his telescope must be the privileged and central one, around which all explanation must revolve. Evolutionary economists see morality through the lens of efficient decision-making, evolutionary psychologists through the lens of Pleistocene adaptations, cultural evolutionists through the lens of the social transmission of ideas, primatologists through the lens of monkey and ape social systems and dispositions, and so on. That diversity is thorny enough, but is understandable: one necessarily comes to the study of humans from the direction that is closest to one's chosen field or method. The unfortunate move analogous to geocentrism, however, is the tendency to define or conceptualize morality in such a way

as to presuppose one's idiosyncratic perspective to be central or even exclusive. Thus, a researcher who conducts experiments on empathy will state that morality is about empathy, and not surprisingly go on to conclude that something fundamental has been demonstrated about morality by those experiments. Others will do the same on the assumption that morality is really about fairness, or reciprocity, or altruism, or compassion, or game-playing, or long-term interests, or adjudicating personal conflicts, or supporting the social group, or managing reputation, depending on their particular interests or lines of work, each proponent placing himself in the most convenient position of being able to describe or explain morality in just a couple of steps. This disorganized free-for-all is the direct result of the evolutionary biologist's refusal to consider carefully what is to be explained before offering an opinion about it. Since evolutionary biologists do not approach other organismic traits in the same haphazard and presumptuous way, the philosopher can be forgiven for considering evolutionary biology's interest in morality as currently no more than dabbling.

Why are evolutionary biologists having this issue? Frankly, the reason is that evolutionary biologists interested in morality do not generally respect philosophy, so they apparently believe that what moral philosophers do for a living will help them understand morality no better than what a biologist can do at a moment's notice with little thought or reading or training. The problem with this idea, of course, is that one cannot avoid doing moral philosophy when talking about morality. The evolutionary biologists are actually doing moral philosophy—they are just doing it poorly. To a philosopher, the evolutionary biologist's handling of morality is essentially slipshod philosophy to which science is precariously appended.

Jargon, as humorously opaque as nonspecialists can find it, represents a conceptual wealth and precision that are key to meaningful communication and reasoning. Every "ism" in meta-ethics is a recognition that there is more than one way to think about a particular aspect of morality. We can consider whether or not we are going to see it as something that deals with truth and falsity (cognitivism vs. noncognitivism), whether or not we are postulating any such thing as moral facts (realism vs. antirealism), whether or not moral statements are primarily descriptions or recommendations (descriptivism vs. prescriptivism), whether the quality of being moral necessarily carries with it a motivation to action or whether those motivations come from elsewhere (internalism vs. externalism), whether moral values are dependent on a will or are intrinsic to the things with such value (subjectivism vs. objectivism), and so on. Great pains have been taken in philosophy to describe morality from these and many other perspectives, to recognize their variety and complexity, and to weigh their relative merits and shortcomings. One result of this extended discussion is a rich understanding of moral experience and thought. We can discuss morality in terms of either obligations or states of affairs; we can use a catch-all concept such as goodness or rightness, or else divide things up into virtues or values; we can speak primarily in terms of moral sentiments or moral reasoning; we can ask questions about the relevance and manner of justification of moral views; we can analyze the privileged status of the moral among our reasons or motivations; we can speak of morality as a social institution or an individual faculty; we can consider moral character, roles, luck, conscience, rights, blame, guilt, and willpower. Of course, this list could go on for pages, and every single distinction and question will be one to which careful thought and observation has been devoted, and the relationship among possible answers or positions will have been meticulously outlined. Not all of these features must be specified or even recognized when introducing a particular account of morality (such as an evolutionary one), but many of them must be. What is even more important is that no account of morality should just bulldoze through these distinctions, reinvent wheels, express a vague position out of ignorance of the distinction, take a position without realizing it, or be self-contradictory due to insufficient depth of thought. Moral philosophy channels our thinking and creativity, organizes our opinions on the big questions, and rules out a great many inconsistent or confused ideas. The goal here is not to intimidate evolutionary biologists with the vast shop-talk of philosophy, but to make the following point: If one does not think seriously about what morality is, one will prejudge a host of issues and put forth an entirely unexamined (and therefore unscientific!) view of it. Such a view will almost certainly be simplistic, vague, and hopelessly biased. Absent the consideration of alternatives and the regulation of opinion that philosophy cultivates, one's view of morality will instead represent all of the typical influences on uninformed opinion-the vagaries of individual imagination, things one's parents or teachers said, the popular ideas in one's neighborhood or generation, underlying political predilections, and most perniciously, personal desires, including (for scientists) what happens to fit with one's research interests and results. An evolutionary biologist, in characterizing morality without

method or care, is exhibiting not only disciplinary isolationism, but also unchecked subjectivity and a lapse of intellectual integrity.

Therefore, considering nothing but current disciplinary practice we have two strong reasons to rely on moral philosophy rather than evolutionary biology for an effective description of morality. First, moral philosophy as a whole is devoted to a detailed and organized description of morality, and aims to represent it in a way that is internally coherent and consistent with the experience of moral agents. Second, although moral philosophers may not agree with each other, they use a common language and know exactly how they disagree. These values might not be enough to guarantee answers to the biggest questions, but they will get us a lot closer than winging it.

Moving forward, let us assume a best-case scenario for an evolutionary account of morality: a situation where meaningful dialogue has been established with philosophy, and evolutionary biologists have become committed to understanding what it is they are explaining before they claim to have explained it. In this situation, evolutionary biology will indeed have important things to say, especially with respect to the content of morality. For instance, insofar as sentiments are important in an ethical theory, evolution can flesh out the theory by providing a catalogue of such moral sentiments, together with the evidence for their pervasiveness, cultural sensitivity, and other features. Anywhere in moral philosophy (and in other fields of philosophy besides) where the nature of the human mind comes into play, data from the biological sciences will come to bear. Much more could be said about the ways in which current and future developments in evolutionary biology and related disciplines might be expected to contribute to an understanding of morality and other aspects of human life.

Still, one issue might remain insurmountable to the depth or thoroughness of explanation of morality that evolutionary biologists tend to seek. This is the issue that began this discussion: the specialness of goodness, or what one might call the peculiar endorsement or priority germane to morality. This feature of moral experience actually throws three separate but related obstacles before any scientific account of morality, including an evolutionary one. The first is that the subjective or experiential component of morality compromises the goal of explaining it scientifically, much as science has found a thorough explanation of consciousness or color difficult. This problem might not be troubling to scientists, who are often content to explain the intersubjective or objective aspects of anything and to exclude a consideration of phenomenology or experience as a general rule, or who might hope for a future day where neuroscience might somewhat erode the barrier to scientific access to personal experience. Nevertheless, wherever science stops short because of either practical or theoretical considerations, philosophy continues. Given merely that morality has such a subjective element, if for no other reason, no scientific explanation will ever fully replace or render unnecessary a philosophical investigation or characterization of morality.

The second obstacle regards the peculiarity of morality in its relation to the empirical. An evolutionary biologist has a good chance of being able to explain morality, only if what is meant by "explain" is to provide historical and functional accounts of the existence or prevalence of dispositions, in the broadest sense including emotions, sympathies, tendencies to reason in a certain way, and biases or trends in our behavior. A thorough explanation of morality, however, would have to provide something else as well, something that seems much more central: an account of why we morally tint all of these psychological and behavioral things the way we do. Although rarely noticed by evolutionary biologists discussing morality, this is a much more challenging prospect. It is an age-old issue that can be stated in many different ways or at different levels, but boils down to the question of how to connect the natural—the stuff science can describe—and the moral—something that we perceive or recognize but that science does not actually dictate or reveal. There is nothing in a sentiment itself, or a decision, or a reason, as science describes it, that tells us that it is more or less morally significant or weighty, or morally better or worse, than others. When we baptize some of them as being moral, whether in the sense of morally relevant or that of morally good, we are doing something that is outside the description that science provides us. When an evolutionary biologist ventures to explain morality, the usual procedure is to sketch out a certain range of dispositions, and then dub them moral, but without explaining why that particular set, rather than some other set, are the moral ones. Consider for instance that we have one tendency toward generosity, and another toward xenophobia (this is not hypothetical—evolutionary psychology has produced good evidence for both). Let us further assume (as likewise appears to be the case) that they arose and spread through the very same evolutionary mechanism. This is where biology's explanation ends. How are we to get to the next step, where we set aside the first but not the second sentiment as moral, in the sense of explaining why the first but not the second is labeled "good"? Evolutionary biology has not been able to tell us how we identify certain dispositions as having a special priority, or how we recognize certain states of affairs to require a distinctive kind of endorsement. Showing us that they have both evolved by natural selection, or how they did so, does not give us the answer because, as this case illustrates, evolutionary mechanism does not distinguish between the moral and immoral dispositions. Moreover, we must recognize that humans have not and do not always characterize xenophobia as such, nor always consider it morally bad, nor do we consider all instances of generosity good, nor are we all of the same mind about the morality of giving in general. There is a world of moral distinction, it seems, that the evolutionary biologist has failed to match to a natural distinction. Of course, this is a problem for the philosophers too, who likewise might be considered to have failed to match the moral to the natural effectively. The point, though, is that evolutionary biology does not appear like a knight in shining armor in this respect. It has, so far anyway, proven unable to explain the peculiarity of morality in its relation to empirical features. The evolutionary biologist calling morality empathy, or altruism, or cooperativeness, or efficiency, or whatever else, is in no better or more secure position for their empiricism than the philosophers who postulate their own connections. There is no scientific theory that provided or predicted those connections; rather, the scientists described the moral *ad hoc*, to suit their theories, and largely without any independent assessment of what people actually do consider morality to be about. Evolutionary biological accounts of morality are thus subject to the very same criticisms and challenges as traditional philosophical accounts. The only real difference is that evolutionary biologists are not usually even aware what these criticisms and challenges are, so they have not sought to overcome them.

The final obstacle that the peculiarity of goodness throws in the way of evolutionary explanation is the most imposing, and promises to undermine the ultimate scientific explanation of morality: the placement of our moral views upon an empirical basis. Granted, not all evolutionary biologists interested in morality hope to do this or think it is possible; but some do. Flying in the face of this hope is a sense of sovereignty, to use Iris Murdoch's term, inherent in the notion of *good* in its most supreme and seemingly transcendent sense—or (to use less grandiose language) the sense of *good* that implies the theoretical utmost of importance or depth of meaning. Moral goodness as a concept will remain slippery to any science because it purports to rise

above any naturalistic or scientific description one attaches to things. And this specialness of goodness is not just a conceptual ploy. We have such a concept precisely because we also have a certain freedom as humans to ascribe goodness or rightness. We do not necessarily do this willy nilly, but we certainly are not constrained to do it solely on the basis of a set of empirical features, even if there is a tendency for our ascription of goodness to correlate with particular empirical features. This quality suggests strongly that science by its very nature as an empirical, repeatable, public, even consensus-based phenomenon will *never* be in a position to decide what goes in the box labeled "morally good," much less to cross the label off and replace it with something else. Evolutionary biology is just about what happened and why, what tends to happen and why. One can acknowledge, when moralizing, that such and such happened, and why it did, and that such and such a view tends to be held, and why it does, and so on, without endorsing the outcome as morally good. To use science to convert any description of anything into a moral code will always be analogous to claiming that one ought to be able to do something just because other kids are doing it. Evolutionary biology is young and excited, and would like to take over morality. Philosophy is old and experienced, and knows that this is a pipe dream and, even more to the point, that evolutionary biology should be ashamed of itself for thinking that way.

Synthesis: Healing the Partnership

Biology is natural philosophy. Natural and moral philosophy are supposed to be partners. The central problem of contemporary meta-ethics has been how to relate moral claims to the natural or empirical features of the world. This project is inherently interdisciplinary. Evolutionary biology is the most promising science, or area of natural philosophy, for explaining the empirical features of human nature from the ground up. Thus, it would seem that moral philosophers and evolutionary biologists interested in morality would have a great deal to talk about. Unfortunately, however, if the foregoing thesis and antithesis are at all hitting the mark (and this is the point on which they most forcefully agree!), the interchange between the two camps is not very productive. Delving beneath the nitty gritty of the arguments, one can perhaps safely sum up the attitudes of the two groups of thinkers toward each other as mutual contempt. A dominant, though usually tacit, perception among evolutionary biologists is that philosophy is a gratuitous exercise in detail and distinction and does not progress or approach

truth. Philosophers, on the other hand, often perceive evolutionary biologists who approach morality as either earnest bumblers who are beyond their depth, or wanton peddlers of flimflam. Needless to say, these perceptions do not foster acceptance of constructive criticism, much less collaboration, between moral philosophers and evolutionary biologists.

This antagonism could partly represent the typical wrangling between C. P. Snow's "two cultures" of science and the humanities; nevertheless, both sides have germs of truth. Evolutionary biologists, despite the strength and relevance of their field for the study of morality or any other area of human affairs, tend to proceed without caution or education in this area. Moral philosophy has for millennia been examining morality from every conceivable standpoint, and has developed and refined a strong analytical method. However, it is empirically impoverished, starving for data, lacking direction for its creativity, wandering through every conceivable cranny of thought space just to stay alive. It needs something more from the natural world than the vague intuitions of the proverbial man on the street and a set of historical views of how the human mind operates. In this context, the current dysfunctional relationship between moral philosophy and evolutionary biology is a travesty. The situation seems not unlike that of a couple who truly need each other, whose lives will be incomplete if they are apart, but whose pride prevents them from budging at all or seeing the other's point and asking for forgiveness. And so they go their separate ways.

How might the relationship between natural and moral philosophy be mended? An actual relationship counselor might promote mutual consideration, after the positions and protests of both sides have been given free expression, by drawing out a few paths to reconciliation: things that either side could do that are feasible, do not contravene fundamental aspects of either perspective, but would begin to overcome major obstacles between them. Fortunately, several such possibilities are indicated by the thesis and antithesis. Here are six.

To the Evolutionary Biologists: Render Your Ideas Precisely

When it comes to morality, you have to recognize that you have not been very good at conceptual specificity, at precision of description, or at recognizing distinctions. This is what philosophers do well. Listen to them and learn to understand what they say. Philosophy aims at conceptual clarity—it can aim at a lot else besides, but even a more robust conception of philosophy will include this aim. If evolutionary biology needs anything when it comes to morality, it is conceptual clarity. If you cannot master the jargon in the philosophical field that has produced a taxonomy and analysis of your object of study, then collaborate with a philosopher. Do not invent your own quirky terminology, when a more refined one already exists. Read what and how others are writing, and see whether and how your views or concepts differ; do not reinvent wheels. Be careful in your wording and specific in your claims. Work toward a shared language with other researchers of the evolution of morality. Much of the confusion and awkward coexistence of conflicting or overlapping concepts in the evolutionary analysis of morality proceeds either from a lack of clarity and specificity of thought, or from a refusal to compare one's chosen terms with those of others.

To the Philosophers: Get with the Empirical Program

Philosophy's relationship with the empirical sciences is necessarily uneasy. A great deal of philosophy might be called a science of the gaps: it handles the questions for which we have no self-correcting observational method of narrowing in on the answer. This situation sets up a turf war-worse, a philosophical scramble for territorial defense, since science is always the one doing the encroaching. You might be tempted to pile up fallacies like sandbags around the things you defend as nonempirical and therefore the exclusive province of philosophical investigation. Consider the matter carefully before doing this, and do not fall into an impetuous disregard for science. Philosophy should engage the empirical. Philosophy must mesh with science if it aims to provide a consistent and useful way for real humans to think about the world. The two handiest checks on poor philosophical theories are alignment with the empirical and internal consistency; a zealous commitment to them is a way that philosophy can correct itself and progress to some extent. Therefore, promptly reanalyze current and historical theories in light of new information. Elements of philosophical theories that are empirical must be submitted to empirical testing and abandoned when they are found wanting. For instance, certain conceptions of the human mind and morals set forth in notable philosophical works are now falsified or at least rendered implausible, and should be allowed to pass away into the philosophical museum. We have no evidence for a priori categories of the mind in the traditional sense. We have no evidence that individuals had a previous existence for which our current intimations of forms are a recollection.

Our major moral values and categories did not originate in contemporary society, nor did they arise historically in the interaction between owners and workers. No longer can our moral philosophy rely merely on centuries-old dichotomies such as between reason and emotion, beliefs and desires, or even (but this is more controversial) the *a priori* and *a posteriori*. These distinctions might still remain useful, but we know more about ourselves now, including how we think and why we think what we do, and this knowledge will necessarily be relevant. Do not construct tortuous philosophical pathways to protect cherished ideas about empirical features of humans or the world that have not been supported by science. Replace them with the best science currently available before moving forward. If you cannot master the empirical field into which your ideas dip, collaborate with a scientist.

To the Evolutionary Biologists: Respect and Utilize the History of Philosophy

The history of moral philosophy is a record of introspection on the phenomenology of morality, the fact of moral experience as it has manifested in ordinary people and in professional thinkers over the ages. This is data. This is observation. This is hypothesis generation. These contributions are no less useful just because evolution was unknown until the eleventh hour, than any other observations, natural history, or data-driven hypotheses are. Consider the content of the Origin of Species, for instance. If we took out of it all of the ideas, observations, and explanations that originated in people who had no viable biological theory and did not accept evolution, much less employ it in their work, the book would be a fraction of its length and would have lost much of great value. And of course, much of Darwin's own thought was shaped by those who came before him, before Lyell, before Malthus, before Lamarck. Returning to the topic of morality and the human condition, the "proper study of mankind" has been "man" ever since man could think in such terms. *Homo sum*, said Terence—nothing that concerns man was alien to his interest—two millennia before the Origin of Species was written. The Sumerian Instructions of Shuruppak present a moral code and reflections on human nature dating from nearly three millennia before that! These and thousands of thinkers since are valuable at the very least as natural historians of the human mind. More than this, such thinkers are no less capable of perceiving important patterns, connections, and causes, for their lack of knowledge of evolution. In many ways, their capacity for producing hypotheses is not diminished

either; in fact, many ancient ideas about how and why humans do what we do are still viable, either as is or with some retooling. Many old ideas are obviously wrong, of course, but not infrequently they are right, or else interesting and plausible, and even when they are wrong they can inspire ideas that might not be. Old ideas can also have a freshness for their distance from us, much like the ideas of a gifted undergraduate who is too green to have been funneled into typical (and often constraining) ways of thinking. Such gems of thought should not be underestimated. The tendency-which seems to me to be increasingamong evolutionary biologists to belittle, en masse, observations and hypotheses presented before the discovery of evolution might have causes ranging from the ignorance of the tunnel-visioned overspecialist to a sort of fundamentalist evolutionary religion; regardless, it is regrettable. Evolutionary biologists, stop thinking that philosophy without Darwin should be ignored. Stop rolling your eyes at pre-Darwinian quotations or at contemporary attempts to analyze or understand pre-Darwinian approaches to morality. As insufficient as they are in some ways, these philosophies can nevertheless provide great insights through an attention to morality even without knowledge of where it came from or why we have it. We must sift for the worthwhile ideas of pre-Darwinian thinkers, whether of old or today, without allowing ourselves to become confused by the aspects of their thought that have been superseded. This practice is nothing new in science; evolutionary biologists are always disentangling viable from falsified or superseded ideas when reading the literature in their own field. (However, feel free to continue rolling your eyes when philosophers defend the falsified or superseded).

To the Philosophers: Take Function Seriously

One project that the realization of evolution by natural selection will eventually force upon moral philosophy is a revision and integration of concepts such as function, utility, history, flourishing, and welfare in an evolutionary context. We now know that there is a causal connection between the historical action of the environment on ancestors and the structure and function of current traits. This is perhaps the most revolutionary feature of natural selection for moral philosophy, but despite some interest, moral philosophers have not yet dealt with the implications in a very thorough or sophisticated way. So, philosophers, get on this case. Does a contribution of a behavior, say, to human flourishing, provide a reason to accept that behavior as morally good? This seems relatively uncontroversial to many, for instance to neo-Aristotelians, yet those who answer in the affirmative have, in the light of evolution, established an indirect but solid connection between history and justification, a thorny type of connection to make, and one that leads many philosophers to fear an approach to social Darwinism. Does the answer change at all if we change the criterion from flourishing to reproductive success? Many philosophers will balk at this shift, but biology has established a strong correlation between the former and the latter. Philosophers, continue to explore the relationship between history and justification, with particular reference to evolutionary and cultural heritage. Consider the possibilities, the criteria and the boundaries, relating to the idea that a biological, including an evolutionary, understanding of the history and function of a disposition, strategy, or behavior can give us natural reasons for a particular moral point of view. And for goodness sake (literally), you must assimilate enough evolutionary biology to know that a trait being adaptive, or contributory to social or reproductive success, does not prejudge the matter of freedom vs. determinism, does not rule out a strong influence of the environment on the trait, does not depend on the relative importance of genetic vs. cultural evolution, does not mean that motivations are conscious or intended, and is not necessarily the whole story as to why the trait exists. Do not let your thought become derailed by these issues. Nearly all evolutionary biologists who study morality make trait function the centerpiece of their research clarifying the moral relevance of function is imperative.

To the Evolutionary Biologists: Accept that You are Doing Philosophy, and Do It Well.

Science cannot possibly tell us what moral goodness is, any more than it can determine whether there is a God. It cannot tell us what the content of morality is—what in particular is good or bad. It cannot even tell us what the form of morality is—it does not indicate any particular meta-ethical stance. It does not demonstrate cultural relativism. It does not support absolutism. It does not vindicate emotivism. It does not reveal a social contract. It does not lead to nihilism. Science cannot possibly do any of these things. Philosophers are largely if not wholly united in this, and no cogent rebuttal exists. If you integrate your view of morality with your evolutionary biology, you must recognize that you are not being an evolutionary biologist when you make these claims; they are not conclusions from your scientific research. What you are doing is *philosophy*; do not pretend that it is science in order to create an aura of empirical authenticity around your view and excuse your neglect of the history of thought. Face the fact that your interest is interdisciplinary and that you must act as a moral philosopher, so that you can be a passable one. Become schooled in the relevant philosophy and understand what it is that you are describing and claiming. Also, process the philosophical critique of your own and similar views-the category mistakes, the begged questions, the conflations, the slides, the vaguenesses-and decide whether they hold water and why or why not. Address them in writing if you wish, but certainly construct or rectify your own system to avoid the problems you do recognize as such. Evolutionary biologists are quick (and often proud) to dismiss the naturalistic fallacy, for instance, but few know what it is, including what philosophers recognize as its (very limited) range of application. Fewer still care to elaborate supervenient or reductive ways of relating the moral to the natural. (A few philosophers have actually constructed such possibilities for incorporation into evolutionary ethical theories, but whether these gifts have been received or appreciated is not clear.) Finally, to those evolutionary biologists who wish to ground moral attitudes and action in the evolutionary process somehow, rather than just explaining their origin, you have your work cut out for you: do not overestimate the moral weight of reasons for action based on evolutionary function. If somewhere lies a solution to or even a compromise on the perennial problems that face evolutionary accounts of morality, you must get up to speed on morality in order to discover and present that possibility. Consider collaborating with a philosopher on this project.

To the Philosophers: Take Human Evolutionary History Seriously

Stop talking about humans as though we appeared instantly, or that our morality did. We were human, and moral, before we formally philosophized about either. And we were something short of moral before we were moral. Our full-fledged morality today, in all of its developmental and individual and cultural variety, is a product of a temporal process, thousands of generations of conceptual and dispositional accretion, transmitted through a combination of genetic inheritance and social learning and perhaps other means. One of the biggest reasons why evolutionary biologists tend to ignore you is that you have not yet incorporated a temporal dimension into your theorizing about traits of humans that have such a dimension: mind, morals, and religion particularly. To some extent, pre-Darwinian as an adjective for philosophy means ahistorical, atemporal, static, unidimensional. Explore not only the history of moral philosophy, but also the history of morality itself. Does this history suggest or even require any adjustments to a contemporary moral philosophy? Pause before throwing up a philosophical bulwark that says "no" before any serious investigation has been conducted. Philosophers from Plato to Nietzsche have invented genealogies of morals in the absence of evidence, and what was considered philosophy in their hands is almost universally considered the stuff of science now because we now know it to be susceptible to empirical inquiry. However, the philosophers still have something to say here. Philosophy can and should begin to engage the genealogy of morals, in the broadest possible sense including the bare fact that morality is a conglomerate of dispositions and tendencies with multiple origins and functions.

Given the ease with which some of these elements of a rapprochement could in principle be achieved, we have reason to be cautiously optimistic about the evolutionary analysis of morality. The raison d'etre of moral philosophy, at least traditionally, is to answer to the question of how we are to live—where we are to go. Evolutionary biology by itself is not going to point the way; that is certain. But what evolutionary biology will do is show the landscape, and to some extent a map of where we have already gone, in a way that no other science and no philosophy can do. If this achievement is not a major help to the production of an ethical theory, then I consider this an indictment of moral philosophy. How can an ethical theory be worthwhile if it is not rooted in some way in what kind of organism we are? What are the prospects for a worldview that is disjunct from what it means to be human—the facts of and reasons for our being this way instead of some other way? We do not want to allow facts about our inherited tendencies or biological function to translate mindlessly into moral values; that is animalistic, in the old derogatory sense. But to embrace human freedom, to rebel against our selfish replicators, to find our way, to eat of the tree of knowledge of good and evil so to speak, surely does not require our moral values to float completely free of facts about ourselves! How then does Ludwig figure out what is good to do? It is telling that the Ludwig whose last name is Wittgenstein apparently had no clue, or at least could not or would not speak about it. That is telling in the same way that all of the most deeply speculative philosophy is telling in its being more effective at ruling out the worst options than in indicating the best ones. Whether we commit to a transcendent purpose to humanity

to solve this biggest of problems in moral philosophy, or make do with more earthly and modest solutions, we will be aided by incorporating more information about ourselves. And evolutionary biology is the science that, more than any other, provides basic and morally relevant information about ourselves. The big question is how to situate our deepest values among those mundane facts, or how to allow those facts to speak to our values.

Coda: In Favor of Evolutionary Philosophy

This paper began by likening the current relationship between moral philosophy and evolutionary biology to that between incommunicative pairs of empirical fields in the social sciences. The glaring difference, of course, is that evolutionary biology really is not a parallel field to philosophy: philosophers deal with morality professionally and go beyond the empirical, but evolutionary biologists are scientists, and when they deal with morality they largely just dabble in philosophy, often without even realizing it, even thinking that they are still being scientists rather than philosophers when they do this. There is no such thing as a field of "evolutionary philosophy" in the sense of an empirically better-informed counterpart to mainstream pre-Darwinian philosophy. If the foregoing thesis is correct at least in spirit, moral philosophers are generally ignorant of evolution or at least poor at incorporating it. If the subsequent antithesis has a shred of truth, scientists who appreciate evolution's significance for philosophical questions largely make their connections in a hasty and oblivious manner, producing vague and crude results. The synthesis above outlines a few ways where these two groups might somewhat remedy their deficiencies in integration and communication. However, realistically, we cannot expect philosophy to change on a dime, and we cannot expect evolutionary biologists to be philosophers. At least temporarily, we need an evolutionary philosophy: a subfield that focuses on the implications of evolutionary theory and the evolutionary history of humans for philosophical issues.

To be sure, there are philosophers who do inhabit the interface with evolutionary biology. The most widely known are the polemicists and popularizers who, like their colleagues in other fields such as journalism and neuroscience and paleontology, select from evolutionary biology particular proponents or ideas, and run with them (or against them). Less sensational and usually better at both their biology and their philosophy are the "philosophers of biology" proper, either in the sense of philosophical police whose beat is biology, or else philosophical translators and interpreters of biology. Scarcer—but they do exist—are those for whom the predominant inspiration is not so much to bring philosophy to bear on biology, but the other way around: to bring biology into philosophy and perhaps even to revolutionize it by doing so. Most of these are philosophers by training, but a few are actually biologists who have become truly interdisciplinary in the way that the above synthesis requests. Some mainly engage in evolutionarily informed critique of existing philosophical theories. Others philosophically spruce up or refurbish the proposals of the evolutionary biologists. A few are creating new philosophical theories from the empirical basis provided by evolutionary biology. This small group of thinkers is essentially carrying the philosophical weight of evolving life on their shoulders. These evolutionary philosophers could use some formal recognition as such, some organized critique, and frankly some stiff competition through an increase in their population size. The biologist who cannot spare the time to become philosophically savvy could then view the evolutionary philosopher the way one views the molecular geneticist, computer programmer, field biologist, ecologist, mathematician, statistician, and modeler: as a specialist, available for consultation or collaboration as projects and problems dictate.

On the other hand, instituting a subfield of evolutionary philosophy could be counterproductive or divisive, essentially giving up on the synthesis that is the central hope of this paper. We would not want to remove from mainstream philosophy the few evolutionary gadflies that do exist there, encouraging the evolutionarily savvy and the pre-Darwinian philosophers to harden their differences in separate incommunicative camps. This sad situation is certainly possible: perhaps the reason why cultural anthropology and social psychology can persist so comfortably in their pre-Darwinian states is because their only challengers have ensconced themselves in fields of their own, and the disciplinary boundaries can be remarkably soundproof. I believe this is a temporary state, however, just as the followers of Cuvier carried on with pre-Darwinian paleontology for a time but are nowhere to be found today. Religious denominations rarely merge because neither side has an empirical mandate. Scientific "denominations" can merge, however, as visionaries integrate their results or as one approach simply becomes more empirically successful than the other. The mutationists and selectionists fused to form the new synthesis of evolutionary biology. Ethology incorporated learning and became behavioral ecology. Two fields that are doing parallel work will fuse as the backward one

slowly accepts the empirical basis of the progressive one, or as arrogant enthusiasm for a new science calms and permits older observations and ideas to maintain their relevance. Something like this happened in genetics and in systematics, and one can hope that it is presently in the throes of happening in areas of anthropology and psychology. I believe it can happen in philosophy, insofar as this field recognizes an empirical mandate (as represented, for instance, in the relationship counsel above, the second, fourth, and sixth suggestions). Regardless, an evolutionary philosophy unheeded by the mainstream is better than no evolutionary philosophy at all.

Not every moral philosopher need be an evolutionary moral philosopher, any more than everyone need be a virtue ethicist or a deontologist, even though a comprehensive moral philosophy will take the genetic and cultural evolution of morality into account, just as it will take thick ethical concepts (virtues) and obligation (the deontic modality) into account. Given the necessity of specialization, many will work in this or that corner of moral philosophy, and for some, evolution might never come up. But in our discussions, our college courses, and our broader thinking about what morals are all about, evolution must feature. In other words, we should consider evolutionary philosophy less as a position to be for or against, and more of a perspective that all should share to some extent. Others have said the same of virtue ethics and deontology (just to maintain this analogy a bit longer). We will still have plenty of scope for argument, of course. A continuum of thought on the relevance of evolution for moral philosophy will remain. At one extreme, some will think that evolution is so "where it's at" with regard to morality that they will construct stark and iconoclastic theories, analogous to a virtue ethic that disparages the concept of the good or a deontological ethic that calculates rightness entirely irrespective of states of affairs. Such theories might somehow base our morality in the evolutionary process or in a certain category of trait function. At the other extreme will be those who put evolution in a miniscule place in their ethical theories, viewing our evolutionary heritage perhaps as a contractor views an ugly old building to be remodeled, which imposes structural limits within which one must work, but whose design features will by no means be considered a guide. But even this recognition is significant, and a far greater role than is currently played by evolution in most philosophical considerations of human nature or morality. And wherever a philosophy lies on this continuum, work will still have to be done to see how the synthesis with evolution works out from time to

time, for instance at the borderlands between history and justification, or when moral differences among cultures are considered, or when certain ideas are made to do serious work, such as pleasure, flourishing, or weakness of the will. Evolutionary philosophy may become a subfield, but no thoroughgoing moral philosopher from 1859 onward can afford to ignore evolution. I write this as though it were 1859 now, just to be polite.

Understanding Moral Sentiments

Darwinian Perspectives

Hilary Putnam, Susan Neiman, and Jeffrey P. Schloss, editors

